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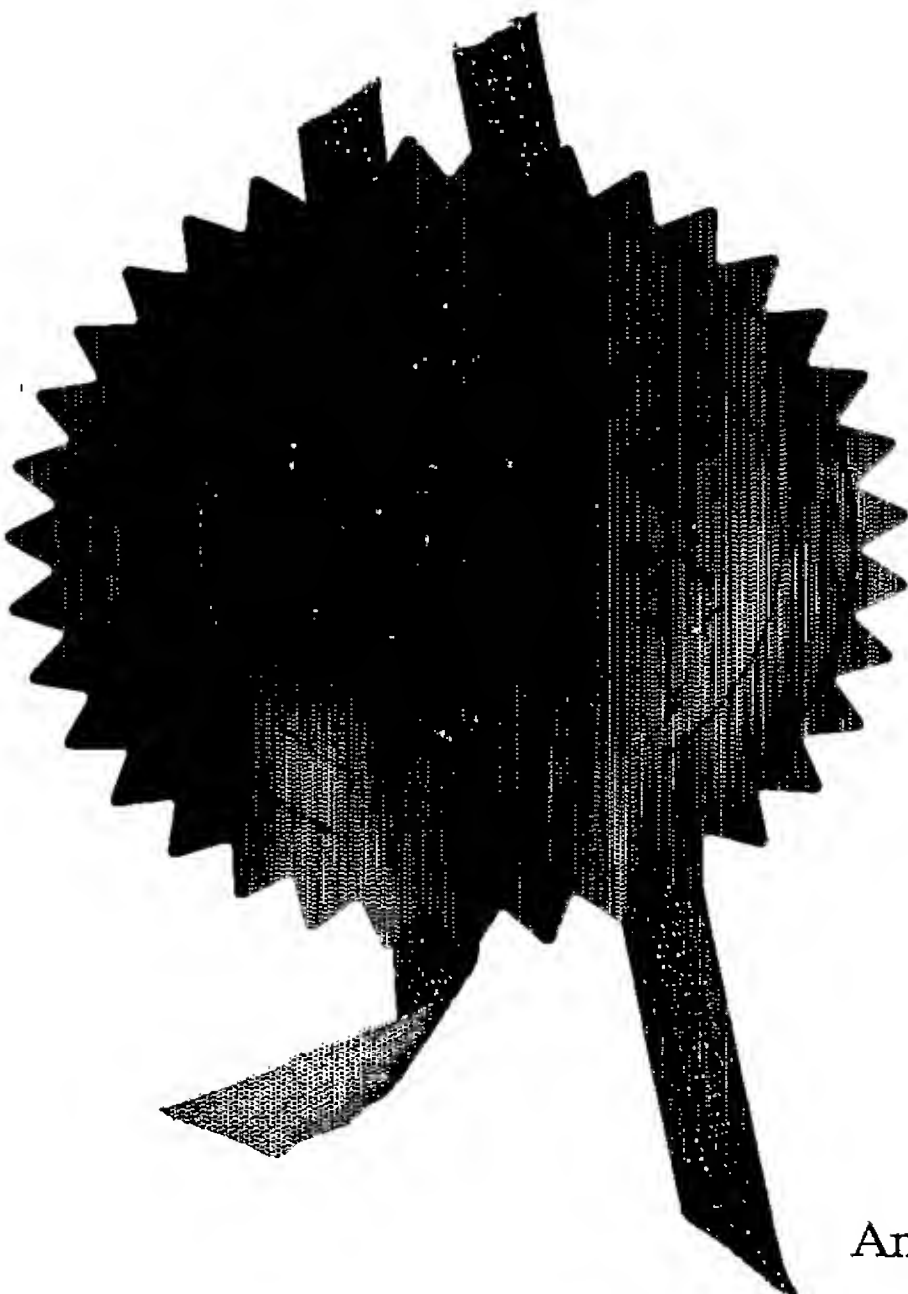
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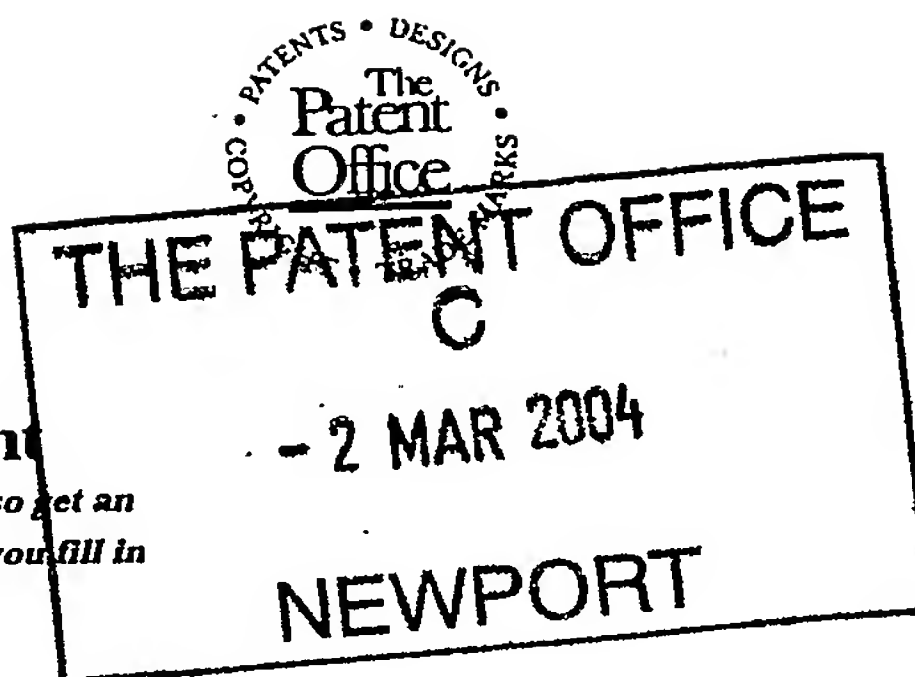
Andrew Gersey

Dated 21 April 2005



# Patents Form 1/77

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The Patent Office

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1. Your reference

Footrest

02MAR04 E877552-2 C80537  
P01/7700 0.00-0404644.7 NONE

2. Patent application number

(The Patent Office will fill in this part)

0404644.7

12 MAR 2004

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Stannah Stairlifts Limited  
Watt Close  
East Portway  
ANDOVER  
Hampshire SP10 3SD

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

England

5650239001

4. Title of the invention

Improvements in or Relating to  
Stairlifts

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom  
to which all correspondence should be sent  
(including the postcode).

Ipca Consulting Limited  
Northpoint House  
52 High Street  
Knaphill  
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Urquhart-Dyke  
& Lord LLP

Alexandra House  
Alexandra Road  
Swansea SA1 5ED

Patents ADP number (if you know it)

7423692002

8857153001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number  
(if you know it)

Date of filing  
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing  
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

- a) any applicant named in part 3 is not an inventor, or
  - b) there is an inventor who is not named as an applicant, or
  - c) any named applicant is a corporate body.
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Patents Form 1/77

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Continuation sheets of this form 0

Description 6

Claim(s) 2

Abstract 0

Drawing(s) 1 + 1 RM

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (please specify)

11.

I/We request the grant of a patent on the basis of this application.

Signature

Andrew Harris

Date

1-03-2004

12. Name and daytime telephone number of person to contact in the United Kingdom

Andrew Harris 01483 489818

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## ***IMPROVEMENTS IN OR RELATING TO STAIRLIFTS***

### ***Field of the Invention***

This invention relates to stairlifts and, in particular, to a footrest for use with a stairlift chair.

### ***Background to the Invention***

A footrest is an integral part of a stairlift chair. However, in the past, the need to provide a footrest can lead to significant difficulties when effecting a particular installation. As the footrest is the closest component of the chair to the staircase, difficulties are often encountered providing clearance between the footrest and the stairway, at all positions of the stairlift chair along the stairlift rail. Interference between the footrest and the stairway is most commonly encountered on where the stairway changes direction, but may also be encountered in other positions depending on the configuration of the staircase.

In the past some stairlift installations have required the centreline of the footrest to be offset from the centreline of the chair by a considerable distance. In other installations the side edges of the (nominally) rectangular footrest have to be cut back at an angle to provide clearance with the stairway.

The different problems encountered, and the fact a stairlift installation may be right-handed or left-handed, mean that a variety of footrest configurations must be manufactured. This has undesirable cost and inventory implications. Furthermore, a technician installing a stairlift may have to take a variety of different footrests to site and

decide, when completing the installation, which particular configuration offers the best compromise between passenger comfort and the need to provide operating clearance between the stairlift and the stairway.

It is an object of the invention to provide a footrest for a stairlift chair which will go at least some way in addressing the aforementioned problems; or which will at least provide a novel and useful choice.

### *Summary of the Invention*

Accordingly, in a first aspect the invention provides a footrest for a stairlift chair, said footrest including a substantially planar upper surface;

an outer edge;

an inner edge substantially opposed to said outer edge; and

side edges joining respective outer margins of said inner edge and said outer edge,

said footrest being characterised in that said inner edge is shorter than said outer edge and said footrest has a pivot point through which said footrest is in use, pivoted with respect to said chair, said pivot being positioned closer to said inner edge than to said outer edge.

Preferably said footrest has a geometric centreline.



Preferably said pivot point lies on said centreline.

Preferably said side edges extend outwardly from said outer edge.

Preferably footrest further includes fixing means to fix the position of said footrest about said pivot point.

In a second aspect the invention provides a stairlift chair having a footrest as set forth above.

In a third aspect the invention provides a stairlift chair and footrest combination, said chair having a central axis extending perpendicular to the intended direction of travel of said chair, and said footrest having a geometric centre line, said footrest further having an outer edge; an inner edge substantially opposed to said outer edge; and side edges joining respective outer margins of said inner edge and said outer edge,

said combination being characterised in that the inner edge of said footrest is shorter than said outer edge and said footrest is mounted to pivot with respect to said chair, the pivot position lying on both the central axis of said chair and the geometric centreline of said footrest.

Preferably said pivot position lies closer to the inner edge of said footrest than to said outer edge.

In a fourth aspect, the invention provides a stairlift installation including the chair and footrest combination as set forth above.



In a fifth aspect the invention comprises any novel combination of the integers disclosed herein capable of addressing a problem known in the stairlift art.

Many variations in the way the present invention can be performed will present themselves to those skilled in the art. The description which follows is intended as an illustration only of one means of performing the invention and the lack of description of variants or equivalents should not be regarded as limiting. Wherever possible, a description of a specific element should be deemed to include any and all equivalents thereof whether in existence now or in the future. The scope of the invention should be limited by the appended claims alone.

#### *Brief Description of the Drawings*

One preferred form of the invention will now be described with reference to the accompanying drawings in which:

- Figure 1: shows an isometric view of a stairlift chair and footrest according to the invention;
- Figure 2: shows a plan view, in a larger scale, of a footrest according to the invention in a first position; and
- Figure 3: shows a view similar to Figure 1 but in a second position.

### *Detailed Description of Working Embodiment*

According to the invention a footrest 5 is provided for use with the chair 6 of a stairlift installation 7. The precise form of the chair is not important to the understanding and implementation of the invention. The sole requirement is that the chair 6 have a central axis 8 as shown in Figure 1

In the form shown in the drawings the footrest 5 is fixed to mounting bracket 10, the bracket 10 being provided at the base of the chair. The bracket 10 is configured to allow the footrest 5 to be folded upwards when the stairlift is not in use.

As can be seen in Figures 2 and 3, in the particular form shown, the footrest has a substantially planar upper surface 12, an outer edge 13, an inner edge 14, and two side edges 15a and 15b. It will also be noted that the inner edge 14 is substantially shorter than the outer edge 13, whilst the two side edges 15a, 15b flare outwardly from the margins of the outer edge 13 to a maximum width indicated at 16, before tapering inwardly to the outer margins of the inner edge 14.

It will also be noted that the footrest preferably has a geometric centreline 18 about which the upper surface 12 is symmetrical.

It should be appreciated that the precise shape shown in the drawings, and described herein, is not essential. Modifications in shape may be made without departing from the scope of the invention.

The footrest is fixed to mounting bracket 10 through pivot 20. As can be seen the pivot 20 is substantially closer to the inner edge 14 than to the outer edge 13. Fixing means

such as lock bolts 21 are provided so that the position of the footrest, once selected, can be secured.

It will be noted from Figures 2 and 3 that the geometric centreline 18 of the footrest passes through pivot 20 and that the pivot 20 is also positioned on a plane, perpendicular to the intended direction of travel of chair 6, extending through the centreline 8 of the chair 6. Thus the chair/footrest combination as described herein, is equally suited for use on left-handed or right-handed installations.

The footrest as herein described has considerable advantages over the prior art in that an installer may, on site, fix the position of the footrest 5 in a manner which not only suits the intended user but also accounts for any obstructions which would cause a conventional footrest to collide with some part of the stairway. Furthermore, the installer is not required to select from a variety of footrests or adapt an existing footrest. The one component can be tailored for any given situation.

It will thus be appreciated that the present invention provides a simple yet effective form of footrest for a stairlift installation which successfully addresses the problems experienced heretofore.

### *Claims*

1. A footrest for a stairlift chair, said footrest including a substantially planar upper surface;  
  
an outer edge;  
  
an inner edge substantially opposed to said outer edge; and  
  
side edges joining respective outer margins of said inner edge and said outer edge,  
  
said footrest being characterised in that said inner edge is shorter than said outer edge and said footrest has a pivot point through which said footrest is in use, pivoted with respect to said chair, said pivot being positioned closer to said inner edge than to said outer edge.
2. A footrest as claimed in claim 1 having a geometric centreline.
3. A footrest as claimed in claim 2 wherein said pivot point lies on said centreline.
4. A footrest as claimed in any one of claims 1 to 3 wherein said side edges extend outwardly from said outer edge.
5. A footrest as claimed in any one of claims 1 to 4 further including fixing means to fix the position of said footrest about said pivot point.
6. A stairlift chair having a footrest as claimed in any one of claims 1 to 5.

7. A stairlift chair and footrest combination, said chair having a central axis extending perpendicular to the intended direction of travel of said chair, and said footrest having a geometric centre line, said footrest further having an outer edge; an inner edge substantially opposed to said outer edge; and side edges joining respective outer margins of said inner edge and said outer edge,  
  
said combination being characterised in that the inner edge of said footrest is shorter than said outer edge and said footrest is mounted to pivot with respect to said chair, the pivot position lying on both the central axis of said chair and the geometric centreline of said footrest.
8. A combination as claimed in claim 7 wherein said pivot position lies closer to the inner edge of said footrest than to said outer edge.
9. A stairlift installation including the chair and footrest combination as claimed in claim 7 or claim 8.
10. Any novel combination of the integers disclosed herein capable of addressing a problem known in the stairlift art.

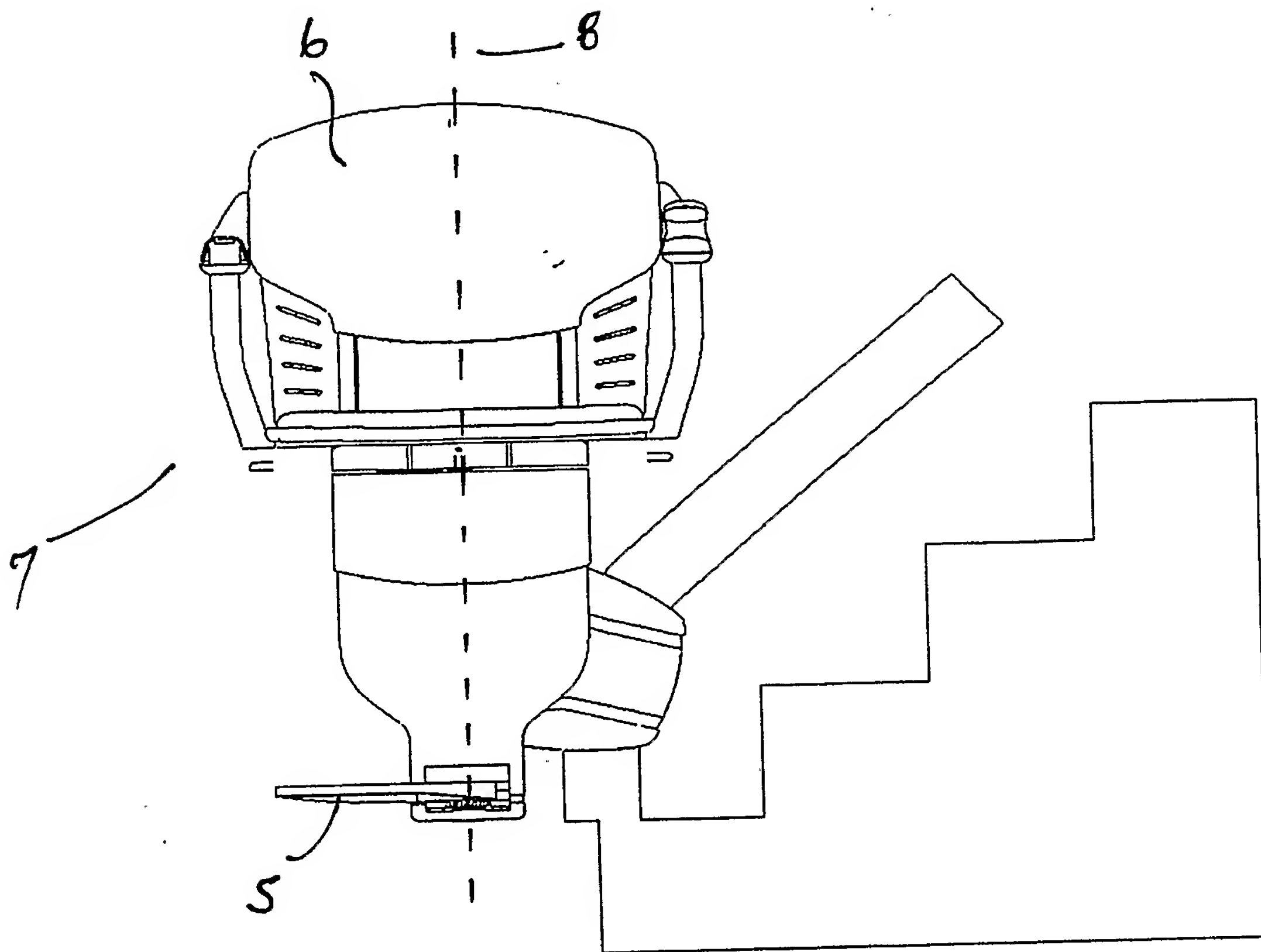


FIGURE 1.

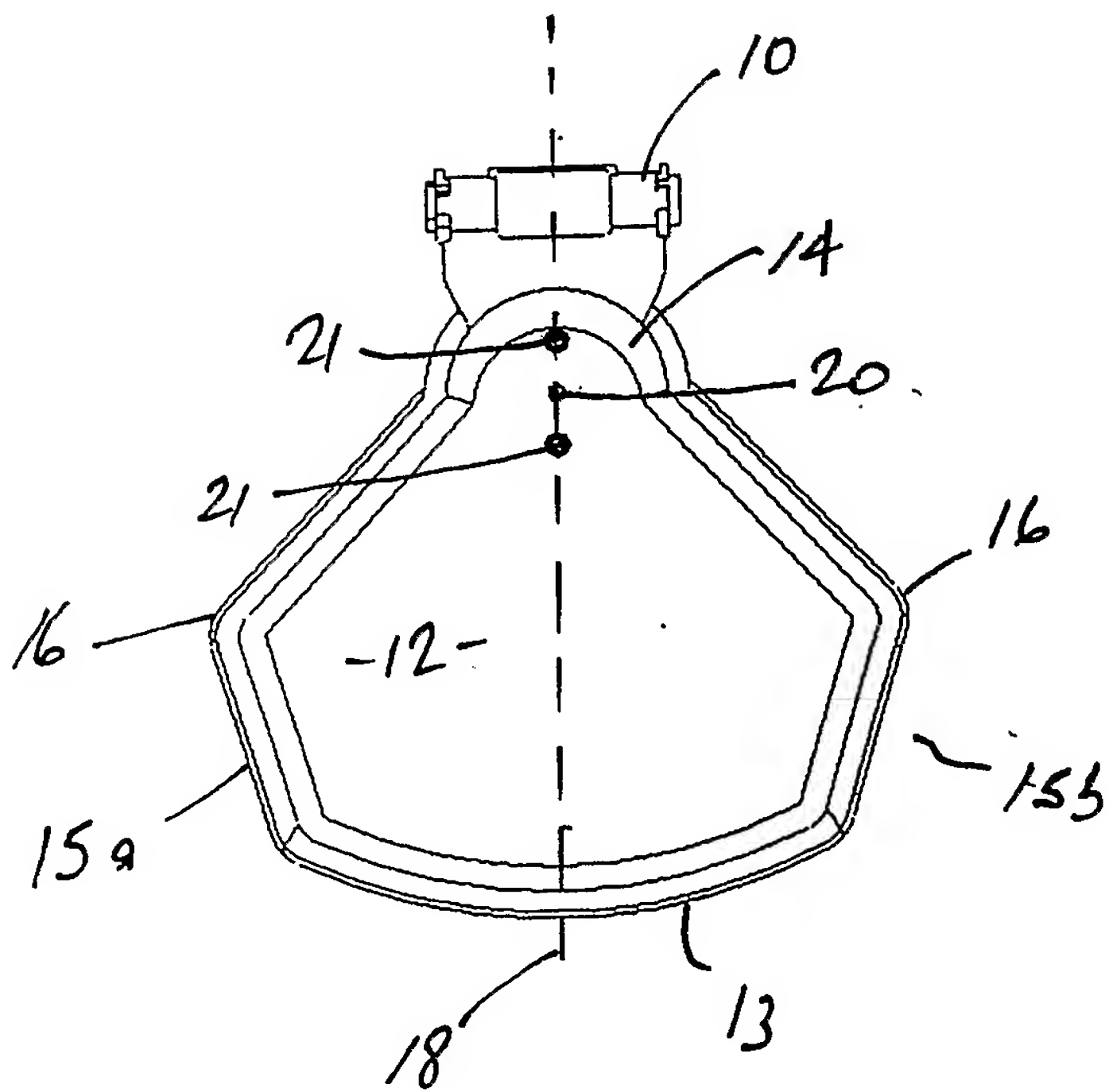


FIGURE 2

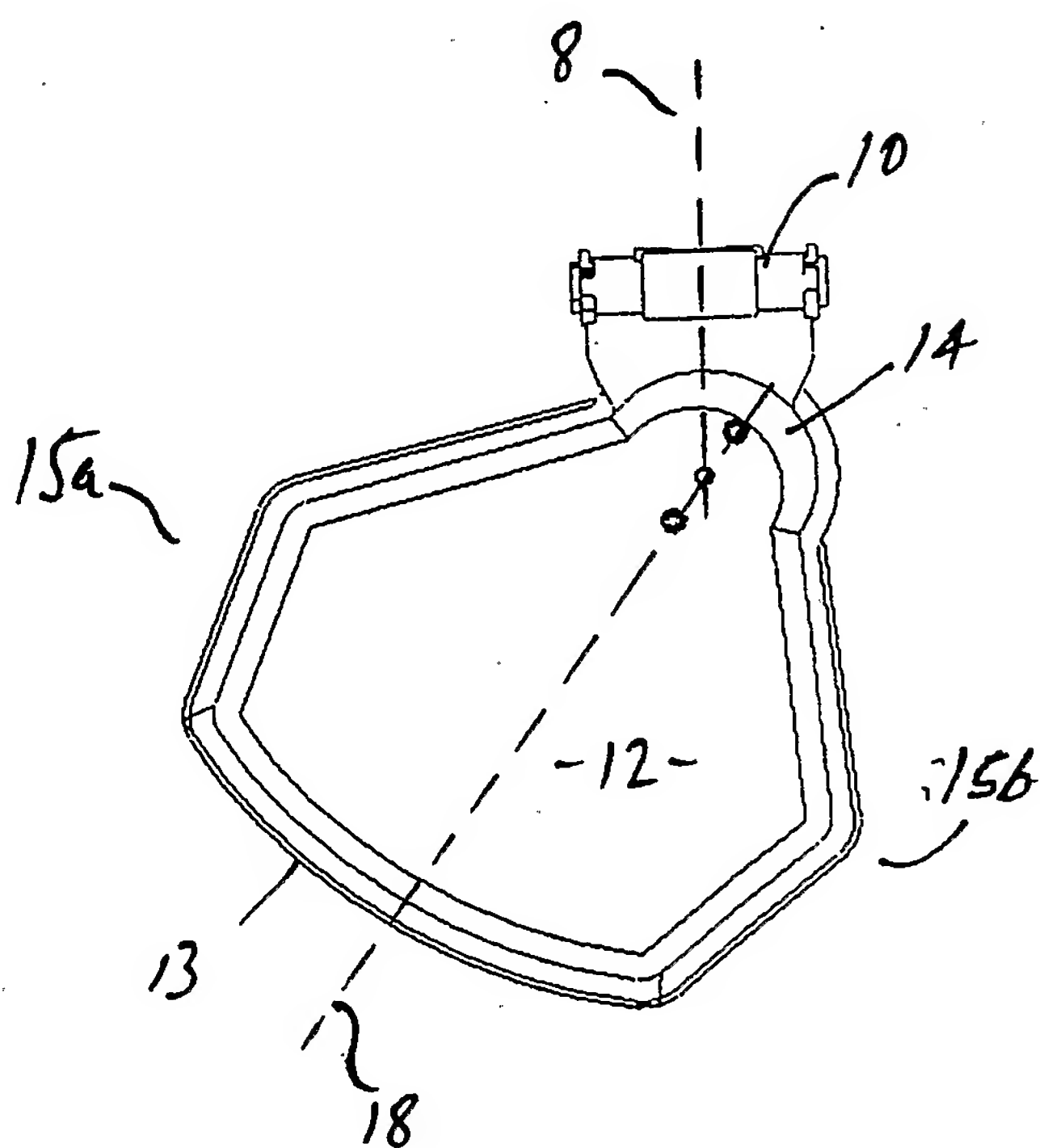


FIGURE 3

